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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/585,643	07/07/2006	Takanori Okada	056937-0295	5463

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EXAMINER

GIARDINO JR, MARK A

ART UNIT	PAPER NUMBER
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2185

NOTIFICATION DATE	DELIVERY MODE
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08/31/2011

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mweipdocket@mwe.com

Office Action Summary

Application No.

10/585,643

Applicant(s)

OKADA ET AL.

Examiner

MARK GIARDINO JR

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 June 2011.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on ____; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 5) ☒ Claim(s) 1,2,4,7,8,10,13,14 and 16 is/are pending in the application.
- 5a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 6) ☒ Claim(s) 2,4,8,10,14 and 16 is/are allowed.
- 7) ☒ Claim(s) 1, 7, 13 is/are rejected.
- 8) ☐ Claim(s) ____ is/are objected to.
- 9) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 12) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

The Examiner acknowledges the applicant's submission of the amendment dated 6/9/2011. At this point claims 1, 7, and 13 have been amended.

The instant application having Application No. 10/585,643 has a total of 9 claims pending in the application, there are 9 independent claims and no dependent claims, all of which are ready for examination by the examiner.

REJECTIONS BASED ON PRIOR ART

Claim Rejections - 35 USC ' 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 7, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Chiba (US 6,401,166) in view of Kozaki et al (US 6,788,575).**

Regarding Claim 1, Chiba teaches a recording medium of non-volatile semiconductor (**memory card 40 of Figure 3**) comprising:

a partition management information region (**master boot memory region, empty region, and partition boot memory region of Figure 4 in Chiba**) and

a partition region (**starting with partition boot memory region of Figure 4**),
wherein

each of the partition management information region (**shown in block 1 of Figure 4**) and the partition region is allocated to at least one memory block (**blocks 3-1024 of Figure 4 in Chiba**), each memory block being physically erasable as a single unit (**each block is erasable as a single unit, Column 1 Line 17-24**),

However, Chiba does not explicitly teach the region secured between the terminal end of the partition management information region is allocated to at least 200 memory blocks and is in a state where data is physically erased. Kozaki teaches an alternative area (**shown in Figure 2**) allocated to at least 200 memory blocks (**the maximum number of alternative sectors is variable, Column 6 Line 64 to Column 7 Line 18, and sectors are the unit of erasing, Column 17 Lines 20-25, and there are at least 200 sectors since a “segment” consists of 128 sectors in the embodiment described, Column 4 Line 61 to Column 5 Line 8**) in a state where data is physically erased (**since the alternative segments map only defective sectors, Column 6 Lines 18-34, data is physically erased until one of the sectors in the alternative segment is used for data storage**).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to which the subject matter pertains to have secured (where “secured” is given the meaning of “established for a particular purpose” as it is used in the specification) the alternative region between the terminal end of the partition management information region and a starting end of the partition region (as in Kozaki) in the device of Chiba, in order to replace defective memory blocks while keeping the memory system operable (Column 1 Lines 49-67 in Kozakai).

Further, since all parts of the invention were known in the art at the time the invention was made, and there are a finite number of predictable solutions of where the “spare region” of Kozaki may be located in Chiba, the proposed combination would have been “obvious to try” according KSR International Co. v. Teleflex Inc. (KSR), 550 U.S. 398, 82 USPQ2d 1385 (2007), since there would be a reasonable expectation of success. See MPEP 2141, Section III.

Claim 7 is the method equivalent of claim 1, and is rejected under similar rationale.

Claim 13 is the information recording format equivalent of claim 1, and is rejected under similar rationale.

ARGUMENTS CONCERNING PRIOR ART REJECTIONS

Rejections - USC 102/103

Applicant argues on page 2 of the submitted remarks “The Examiners indicated that the amended claims, which each recite, *inter alia*, “a switch region located between a terminal end of the partition management information region and a starting end of the partition region” overcome the rejection in view of Chiba and Kozaki”. The examiner disagrees. During the telephone interview on May 24, 2011, Examiners and Applicant’s representative discussed proposed amendments. While these amendments were discussed, no formal language was agreed upon. Applicant was also encouraged to clarify claim language regarding the visibility of the sections to the host to distinguish the invention further. Upon formal submission, the Examiner maintains the rejection as

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noted above.

Even though “a switch region located between a terminal end of the partition management information region and a starting end of the partition region” is not explicitly shown in either Chiba or Kozaki, Kozaki teaches a “switch region” as claimed. One of the exemplary rationales that may support a conclusion of obviousness under *KSR vs. Teleflex* includes “choosing from a finite number of identified, predictable solutions, with a reasonable expectation of success”. In the instant case, given the primary reference of Chiba, there are only a finite number of locations where the switch region of Kozaki may be located - namely, before the master boot memory region, after the partition boot memory region, after the directory region, or after the data region. Because the number of locations of the switch region is small, there is “a finite number of identified, predictable solutions”. Further, there is a “reasonable expectation of success” that the switch region would operate properly when placed between the “terminal end of the partition management information region and a starting end of the partition region”, as recited in claims 1, 7, and 13. Thus, the combination of Chiba in view of Kozaki teaches “a switch region located between a terminal end of the partition management information region and a starting end of the partition region”. Also see MPEP 2141, Section III.

On page 3 of the submitted remarks, Applicant argues “Independent claims 1, 7, and 13 each recite, inter alia, “a switch region located between a terminal end of the partition management information region and a starting end of the partition region.” In

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contrast, the alternative area shown in Kozaki, FIG. 2, is located at the end of the flash memory array, and accordingly would not be "located between a terminal end of the partition management information region and a starting end of the partition region," were such regions recorded in the regular area of the flash memory array - which corresponds to (with the exception of defective sectors) the memory available via the host address space. This point was agreed upon in the above-mentioned interview."

The Examiner respectfully disagrees. Though this memory is "available" to the host, there is no limitation in claims 1, 7, or 13 indicating that the spare region is visible to the host as discussed in the interview of May 24, 2011. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

CLOSING COMMENTS

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

STATUS OF CLAIMS IN THE APPLICATION

The following is a summary of the treatment and status of all claims in the application as recommended by **M.P.E.P. ' 707.07(i)**:

SUBJECT MATTER CONSIDERED ALLOWABLE

Claims 2, 8, 14, 4, 10, and 16 have been considered allowable subject matter.

CLAIMS REJECTED IN THE APPLICATION

Per the instant office action, claims 1, 7, and 13 have received a second action on the merits and are subject of a second action final.

DIRECTION OF FUTURE CORRESPONDENCES

Any inquiry concerning this communication or earlier communications from the examiner should be directed to M. Anthony Giardino whose telephone number is (571) 270-3565 and can normally be reached on Monday - Thursday 7:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Sanjiv Shah can be reached on (571) 272 - 4098. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

M.A. Giardino

/M.G./

Patent Examiner
Art Unit 2185

August 26, 2011

**/Stephen Elmore/
Primary Examiner**
Art Unit 2188